

Town of Hull

Hull Retirement System

Actuarial Valuation Report

As of January 1, 2014

Issued December 2014



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December 9, 2014

Personal and Confidential

Ms. Lauren Dunham  
Retirement Board Administrator  
Hull Retirement Board  
253 Atlantic Avenue  
Hull, MA 02045

Dear Ms. Dunham:

We have performed an actuarial valuation of the Hull Retirement System as of January 1, 2014 for the fiscal year ending June 30, 2016. The purposes of the valuation are to review the experience of the plan during the period that ended December 31, 2013 and to determine the employer cash contribution amount for the fiscal year ending on June 30, 2016. The employee data and financial information used in this valuation were provided by the Town of Hull and by the Hull Retirement System and were not audited by us, but were reviewed by us for reasonableness.

This report has been prepared in accordance with generally accepted actuarial principles and practices, and fairly reflects the current actuarial position of the plan. In our opinion, each of the actuarial assumptions used is reasonable and represents our best estimate of expected long-term trends.

The basic valuation results as of January 1, 2014 are as follows:

### January 1, 2014 Valuation Summary

	<u>January 1, 2014</u>	<u>January 1, 2012</u>	<u>Change</u>
Actuarial Accrued Liability	64,528,515	59,993,728	4,534,787
Actuarial Value of Assets	<u>34,820,803</u>	<u>26,210,257</u>	8,610,546
Unfunded Actuarial Liability	29,707,712	33,783,471	(4,075,759)
Gross Normal Cost	1,473,101	1,335,810	137,291
Contribution Fiscal 2016	3,468,864	3,533,093	(64,229)
Funding Schedule Length	16 years	20 years	-4 years
Amortization Increase	3.80%	3.80%	0.00%
Funding Ratio	53.96%	43.69%	10.27%
Discount Rate Assumption	7.75%	7.75%	0.00%
Salary Increase Assumption	4.50%	4.50%	0.00%

We refer you to Section I of this report for a detailed summary and commentary on the results of the valuation and a comparison with the prior valuation. Section II is a summary of the plan provisions, and Section III describes the actuarial cost method and assumptions. Calculation details, supporting data and disclosures are provided in Exhibits A through G.

We will be pleased to answer any questions that you may have regarding this actuarial valuation report.

The signing actuaries are members of the Society of Actuaries, the American Academy of Actuaries and other professional actuarial organizations and meet their "General Qualification Standards for Statements of Actuarial Opinion" to render the actuarial opinion contained herein. Further, in our opinion, the assumptions as approved by the Town are reasonably related to the experience and expectations of the postemployment benefits programs.

Very truly yours,



Parker E. Elmore  
Associate, Society of Actuaries

Enclosure

## SECTION I

### PRINCIPAL RESULTS OF THE VALUATION

	<u>January 1, 2014</u>	<u>January 1, 2012</u>
<b><u>Summary of Results</u></b>		
I. Actuarial Accrued Liability		
a. Actives	28,974,709	27,941,507
b. Inactives	487,749	697,022
c. Retirees/Beneficiaries	<u>35,066,057</u>	<u>31,355,199</u>
d. Total	64,528,515	59,993,728
II. Actuarial Value of Plan Assets	<u>34,820,803</u>	<u>26,210,257</u>
III. Unfunded Actuarial Accrued Liability	29,707,712	33,783,471
IV. Eighteen month adjustment	<u>1,393,456</u>	<u>1,584,632</u>
V. Adjusted Unfunded Actuarial Accrued Liability	31,101,168	35,368,103
VI. Funded Ratio	53.96%	43.69%
VII. Normal Cost		
a. Gross Normal Cost	1,473,101	1,335,810
b. Expected Employee Contributions	<u>855,847</u>	<u>824,120</u>
c. Net Normal Cost	617,254	511,690
d. Eighteen Month Adjustment	42,130	34,924
e. Administrative Expense Assumption	<u>150,000</u>	<u>156,592</u>
f. Adjusted Normal Cost & Expense	809,384	703,206
VIII. Net 3(8)(c) Payments	125,000	110,317
IX. Funding Amortization of UAAL	<u>2,534,480</u>	<u>2,464,033</u>
X. Contribution Amount for fiscal year 2016	3,468,864	3,277,556
XI. Contribution Amount for fiscal year 2016 from prior schedule	<u>3,533,093</u>	
XII. Change in Contribution Amount for fiscal year 2016	<span style="color: red;">(64,229)</span>	

SECTION I  
PRINCIPAL RESULTS OF THE VALUATION  
(continued)

**Membership Information**

	<u>January 1, 2014</u>	<u>January 1, 2012</u>
I. Actives		
a. Number of Participants	178	178
b. Total Compensation	9,293,846	9,189,068
c. Average Annual Compensation	52,213	51,624
d. Average Attained Age	51.89	50.30
e. Average Past Service	12.89	12.80
II. Inactives		
a. Number of Participants	36	50
III. Retirees/Beneficiaries		
a. Number of Participants	130	130
b. Total Annual Payments	3,430,987	3,151,617

**B. Commentary on Plan Experience and Contribution Amounts**

- (1) Plan experience was, in aggregate, more favorable than anticipated during the period ending December 31, 2013. The significant actuarial experience factors occurring during the year were as follows:
  - (a) The estimated annual rate of return on plan assets during the period was approximately 28.52% on a market value basis. The actuarial value basis rate of return during the period was greater than the assumed long-term rate of return of 16.10% during the period (7.75% per year), thereby resulting in an actuarial gain of approximately \$3,304,658 from this source alone.
- (2) The January 1, 2014 market value of plan assets of \$34,820,803 was less than the actuarial present value of all accumulated plan benefits of \$64,528,515 determined on an ongoing plan basis as of January 1, 2014. The ratio of plan assets to the actuarial present value of accumulated plan benefits (ongoing plan basis) was 53.96% as of January 1, 2014.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

Participant:

Participation is mandatory for all full-time employees whose employment commences prior to age 65. There are three (3) classes of members in the retirement system:

Group 1: General employees

Group 2: Employees in specified hazardous occupations (e.g., electricians)

Group 4: Police & Firefighters

Member Contributions:

Member contributions vary depending upon date hired as follows:

<b>Hire Date</b>	<b>Member Contribution Rate</b>
Prior to 1975	5.0% of pay
1975 to 1983	7.0% of pay
1984 to June 30, 1996	8.0% of pay
July 1, 1996 & beyond	9.0% of pay

Members hired on or after January 1, 1979 shall contribute an additional 2.0% on any compensation in excess of \$30,000 (Teachers participating in the "Retirement Plus" program are not subject to this additional withholding.).

"Regular Interest" on Contributions:

Members shall have interest credited on their contributions at the rate of 3.0% per year.



## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Pay:

- |                |  |
|----------------|--|
| a. Pay         | Gross regular compensation excluding bonuses, overtime, severance pay, unused sick pay and other similar compensation.   |
| b. Average Pay | The average of pay during the three (3) consecutive years that produce the highest average or, if greater, during the last three years (whether or not consecutive) preceding retirement. For those who became Members on or after April 2, 2012, the average pay shall be based on the five (5) consecutive years that produce the highest average rather than three (3) years. |

#### Credited Service

Period during which an employee contributes to the retirement system plus certain periods of military service and "purchased" service.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Service Retirement:

a. Eligibility

An employee hired before April 2, 2012 shall become eligible to retire under this plan upon attainment of age 55 as an active member and completion of 10 years of service or an employee shall be able to retire with 20 years of service regardless of age. An employee hired prior to 1978 or a member of Group 4, shall become eligible upon attainment of age 55. Group 1 Members hired on or after April 2, 2012 shall be eligible to retire upon attainment of age 60 with 10 years of creditable service.

b. Retirement Allowance

Determined as the product of the member's benefit percentage, average pay and credited service, where the benefit percentage is shown below (maximum allowance is 80% of average pay):

For those who became Members prior to April 2, 2012

<b>Benefit Percentage</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Group 4</b>
2.50%	65+	60+	55+
2.40%	64	59	54
2.30%	63	58	53
2.20%	62	57	52
2.10%	61	56	51
2.00%	60	55	50
1.90%	59	N/A	49
1.80%	58	N/A	48
1.70%	57	N/A	57
1.60%	56	N/A	56
1.50%	55	N/A	45

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

- b. Retirement Allowance (continued) For those who became Members on or after April 2, 2012

For Members with less than 30 years of Creditable Service

<b>Benefit</b>			
<b>Percentage</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Group 4</b>
2.500%	67+	62+	57+
2.350%	666	61	56
2.200%	65	60	55
2.050%	64	59	54
1.900%	63	58	53
1.750%	62	57	52
1.600%	61	56	51
1.450%	60	55	50

For Members with at least 30 years of Creditable Service

<b>Benefit</b>			
<b>Percentage</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Group 4</b>
2.500%	67+	62+	57+
2.357%	666	61	56
2.250%	65	60	55
2.125%	64	59	54
2.000%	63	58	53
1.875%	62	57	52
1.750%	61	56	51
1.625%	60	55	50

In addition, qualified veterans will receive an additional \$15 per year for each year of credited service up to 20 years.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Deferred Vested Retirement:

- a. Eligibility Completion of 10 years of credited service (for elected and appointed members, 6 years in the event of involuntary termination).
- b. Retirement Allowance Determined in the same manner as Service Retirement with the benefit payable upon attainment of age 55, unless deferred until a later age at the option of the member.  
  
Member contributions with interest may be withdrawn after separation of service. If contributions are withdrawn, eligibility for retirement benefits is forfeited. Members hired before 1984 receive full interest on contributions that are withdrawn. For all others, ½ of the credited interest is provided for members who withdraw after 5 but before 10 years of Credited Service and no interest is provided for withdrawals before 5 years of Credited Service.

#### Ordinary Disability Retirement:

- a. Eligibility Non-job related disability after completion of 10 years of Credited Service.
- b. Retirement Allowance Determined in the same manner as Service Retirement with the benefit payable immediately (if the Member is less than age 55, they are deemed to be age 55 for purposes of their retirement allowance). Qualified Veterans shall receive 50% of pay (during their final year) plus an annuity based on accumulated member contributions with interest.

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Accidental Disability Retirement:

- |    |                      |  |
|----|----------------------|--|
| a. | Eligibility          | Disabled as a result of an accident in the performance of duties. There is no age or service requirement.  |
| b. | Retirement Allowance | 72% of pay plus an annuity based on accumulated member contributions with interest. Also, a dependent's allowance per year for each child shall be provided. Total allowance shall not exceed 100% of pay (75% of pay for those hired after 1987). |

#### Non-Occupational Death:

- |    |                      |   |
|----|----------------------|---|
| a. | Eligibility          | Dies while in active service, but not due to an occupational injury. The member must have at least 2 years of Credited Service.   |
| b. | Retirement Allowance | Benefit as if Option C had been elected. Minimum monthly benefits shall be provided as follows:<br>spouse - \$250, 1 <sup>st</sup> child - \$120, each additional child - \$90. |

#### Occupational Death:

- |    |                      |   |
|----|----------------------|---|
| a. | Eligibility          | Dies as a result of an occupational injury.   |
| b. | Retirement Allowance | The benefit provided shall be computed in the same manner as that for Accidental Disability Retirement. |

## SECTION II

### SUMMARY OF PLAN PROVISIONS

(continued)

#### Cost-of-Living Increases:

An increase of up to 3.0% applied to the first \$12,000 of annual benefit. Funded by the Municipality from Fiscal Year 1999. Percentage increase is voted on each year by the Retirement Board. Cost-of-living increases granted during Fiscal Year 1982 through Fiscal Year 1998 shall be reimbursed by the Commonwealth.

#### Optional Forms of Payment:

- a. Option A Monthly allowance payable for the life of the member.
- b. Retirement Allowance Monthly allowance payable for the life of the member with a guarantee of remaining member contributions with interest.
- c. Option C Monthly allowance payable for the life of the member. Upon the death of the member, 66-2/3% of such allowance shall continue to the member's beneficiary until their death. In the event the beneficiary shall predecease the member, the allowance amount shall "pop-up" to the non-reduced amount.

#### Non-Vested Termination:

A member who voluntarily terminates employment with less than 10 years of service will receive interest on their Annuity Savings account at the annual rate of 3.0% upon withdrawal of such funds and will have no further benefits payable from the Plan.

#### Funding:

The plan is funded by a combination of Employer and Participant contributions.

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

##### A. Actuarial Cost Method

For purposes of calculating ERISA funding contribution amounts, the actuarial cost method used to calculate the costs and liabilities of the plan is the **Entry Age Normal Method**. A method under which the actuarial present value of the projected benefits of each individual included in the actuarial valuation is allocated on a level basis over the service of the individual between entry age and assumed exit ages. The portion of this actuarial present value allocated to a valuation year is called the normal cost. The portion of this actuarial present value not provided for at a valuation date by the actuarial present value of future normal costs is called the actuarial liability. The portion of the actuarial liability exceeding the actuarial value of the assets is called the unfunded actuarial liability. Under this method the following occur:

- (i) Individual Entry Age Normal Costs and Actuarial Liabilities are added together to form the total Entry Age Normal Cost and Actuarial Liability.
- (ii) The entry age for a participant is established as the individual's age on the first valuation date the participant was eligible to enter the Plan.
- (iii) The actuarial gains (losses), Plan amendments and changes in actuarial assumptions, as they occur, reduce (increase) the existing unfunded actuarial liability.

Actuarial gains and losses are calculated each year and amortized over the minimum and maximum periods allowed by law from the year of such gain or loss.

All employees who are plan participants on a valuation date are included in the actuarial valuation

##### B. Asset Valuation Method

The actuarial value of plan assets as of a valuation date is equal to the market value of plan assets on the valuation date, as reported by the Retirement Board, plus any receivable contributions..

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### C. Fiscal Year Adjustment

The actuarial results are adjusted by the valuation interest rate and salary scale to the beginning of Fiscal 2016. The unfunded actuarial accrued liability is rolled forward with normal cost and further adjusted by anticipated contributions and interest.

#### D. Actuarial Assumptions

##### *Mortality*

##### *Healthy Life Mortality*

The RP-2000 Mortality Table (sex-distinct) projected 17 years with Scale AA.

##### *Disabled Life Mortality*

The RP-2000 Mortality Table (sex-distinct) projected 10 years with Scale AA set-forward 2 years.

##### *Investment Return*

7.75% per year, net of expenses.

##### *Compensation Increases*

4.50% per year.

##### *Cost-of-Living Increases*

A 3.0% COLA on the first \$12,000 of a member's annual retirement allowance is assumed to be granted each year.

##### *Regular interest rate*

A 3.0% interest rate is assumed to be credited to a member's annuity savings account each year.

##### *Administrative Expenses*

An estimated annual expense of \$150,000 for the 2016 Fiscal Year excluding management fees and custodial expenses is added to the Normal Cost.



### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS

(continued)

#### *Employee Termination*

The rates shown represent the withdrawal assumption for those not yet eligible to retire:

<u>Service</u>	<u>Non Public Safety Male</u>	<u>Non Public</u>	<u>Public Safety</u>
		<u>Safety Female</u>	
0	15.00%	15.00%	1.50%
5	7.60%	7.60%	1.50%
10	5.40%	5.40%	1.50%
15	3.30%	3.30%	0.00%
20	2.00%	2.00%	0.00%
25	1.00%	1.00%	0.00%
30	0.00%	0.00%	0.00%

#### *Disability*

The rates shown represent the disability assumption:

<u>Age</u>	<u>Non Public Safety Male</u>	<u>Non Public</u>	<u>Public Safety</u>
		<u>Safety Female</u>	
20	0.01%	0.01%	0.10%
25	0.02%	0.02%	0.20%
30	0.03%	0.03%	0.30%
35	0.06%	0.06%	0.30%
40	0.10%	0.10%	0.30%
45	0.15%	0.15%	1.00%
50	0.19%	0.19%	1.25%
55	0.24%	0.24%	1.20%
60	0.28%	0.28%	0.85%

Disability is assumed to be 25% ordinary and 75% accidental for Groups 1 & 2 and 10% ordinary and 90% accidental for Group 4.

### SECTION III

#### ACTUARIAL COST METHOD, ASSET VALUATION METHOD AND ACTUARIAL ASSUMPTIONS (continued)

*Retirement Age*

The rates shown represent the retirement assumption:

<u>Age</u>	<u>Non Public Safety Male</u>	<u>Non Public Safety Female</u>	<u>Public Safety</u>
45	0.00%	0.00%	1.00%
46	0.00%	0.00%	1.00%
47	0.00%	0.00%	1.00%
48	0.00%	0.00%	1.00%
49	0.00%	0.00%	1.00%
50	1.00%	1.50%	2.00%
51	1.00%	1.50%	2.00%
52	1.00%	2.50%	2.00%
53	1.00%	2.50%	5.00%
54	2.00%	2.50%	7.50%
55	2.00%	5.50%	15.00%
56	2.50%	6.50%	10.00%
57	2.50%	6.50%	10.00%
58	5.00%	6.50%	10.00%
59	6.50%	6.50%	15.00%
60	12.00%	5.00%	20.00%
61	20.00%	13.00%	20.00%
62	30.00%	15.00%	25.00%
63	25.00%	12.50%	25.00%
64	22.00%	18.00%	30.00%
65	40.00%	15.00%	100.00%
66	25.00%	20.00%	100.00%
67	25.00%	20.00%	100.00%
68	30.00%	25.00%	100.00%
69	30.00%	20.00%	100.00%
70	100.00%	100.00%	100.00%
71	100.00%	100.00%	100.00%
72	100.00%	100.00%	100.00%

SECTION IIIACTUARIAL COST METHOD, ASSET VALUATION METHOD  
AND ACTUARIAL ASSUMPTIONS

(continued)

*Family Composition*

Members are assumed to be married with 2 dependent children (one male, one female – both age 15). The male spouse is assumed to be three (3) years older than his partner.

*Step Increases*

Step increases are assumed to be part of the salary increase assumption.

*3(8)(c)*

Net 3(8)(c) payments are added to the contribution amount (not included in the Accrued Liability). They are assumed to remain constant at \$125,000.

*Contribution Timing*

Contributions are assumed to be made at the beginning of each fiscal year (July 1<sup>st</sup>).

*Valuation Date*

January 1, 2014.

## EXHIBIT A

### Development of Actuarial Gain or (Loss)

Actuarial gains or (losses) occurring during the preceding year are determined as of each valuation date. Both the magnitude and sources of gains or (losses) are monitored over time in order to assess the reasonableness of actuarial assumptions.

<b>Calculation of Liability Gain /( Loss)</b>	
Accrued Liability at January 1, 2012	59,993,728
Total Gross Normal Cost during period	2,731,731
Total Distributions & reimbursements during period	7,861,396
Expected Accrued Liability at December 31, 2013	64,128,934
Actual Accrued Liability at January 1, 2014	<u>64,528,515</u>
Gain / (Loss) from Asset Performance during period	<b>399,581</b>

<b>Calculation of Asset Gain /( Loss)</b>	
Assets at January 1, 2012	26,210,256.79
Total Contributions & reimbursements during period	8,602,152.43
Total Distributions & reimbursements during period	7,861,396.32
Total Net Expected Investment Income during period	4,565,132.10
Expected Assets at December 31, 2013	31,516,145.00
Actual Assets at January 1, 2014	<u>34,820,802.53</u>
Gain / (Loss) from Asset Performance during period	<b>3,304,657.53</b>
 Total Gain / (Loss) during period	 <b>3,704,238.53</b>

## EXHIBIT B

### Statement of Assets

Based upon information furnished by the Hull Retirement System, and by the Town of Hull, the assets of the plan as of December 31, 2013 are summarized as follows:

Assets at January 1, 2012	26,210,256.79
Contributions during 2012	
4891 Member deductions	847,719.36
4892 Transfers from other systems	109,424.37
4893 Member make-up payments	38,379.02
4900 Member payments from rollovers	0.00
4898 3(8)(c ) Reimbursements	85,113.87
4899 Commonwealth COLA reimbursement	87,905.61
4894 Pension Fund Appropriation	3,154,369.00
4897 Federal Grant Reimbursement	<u>20,358.85</u>
Total Contributions	4,343,270.08
Expenses during 2012	
5757 Refunds to members	85,661.26
5756 Transfers to other systems	465,681.12
5750 Annuities paid	452,608.39
5751 Pensions Paid	2,890,450.12
5755 3(8)(c ) Reimbursements to other systems	<u>166,169.18</u>
Total Distributions	4,060,570.07
Net Investment Income	3,336,324.38
Assets at December 31, 2012	29,829,281.18
Contributions during 2013	
4891 Member deductions	888,189.69
4892 Transfers from other systems	31,378.89
4893 Member make-up payments	31,589.72
4900 Member payments from rollovers	0.00
4898 3(8)(c ) Reimbursements	171,371.61
4899 Commonwealth COLA reimbursement	121,141.00
4894 Pension Fund Appropriation	3,277,556.00
4897 Federal Grant Reimbursement	<u>20,355.45</u>
Total Contributions	4,541,582.36
Expenses during 2013	
5757 Refunds to members	37,426.56
5756 Transfers to other systems	66,890.86
5750 Annuities paid	423,969.85
5751 Pensions Paid	2,943,623.74
5755 3(8)(c ) Reimbursements to other systems	<u>328,915.24</u>
Total Distributions	3,800,826.25
Net Investment Income	4,250,765.24
Assets at December 31, 2013	34,820,802.53

## EXHIBIT C

### Demographic Information

#### **Age and Service Distribution of Active Plan Participants**

<u>Age</u>	<u>Service</u>							<u>Total</u>	<u>Total Compensation</u>	<u>Average Compensation</u>
	<u>0 - 4</u>	<u>5 - 9</u>	<u>10 - 14</u>	<u>15 - 19</u>	<u>20 - 24</u>	<u>25 - 29</u>	<u>30 +</u>			
<20	0	0	0	0	0	0	0	0	0	0
20 - 24	0	0	0	0	0	0	0	0	0	0
25 - 29	3	0	0	0	0	0	0	3	156,929	52,310
30 - 34	5	2	1	0	0	0	0	8	354,651	44,331
35 - 39	2	7	3	0	0	0	0	12	620,997	51,750
40 - 44	16	3	7	4	0	0	0	30	1,483,125	49,438
45 - 49	1	10	6	3	0	0	0	20	1,088,336	54,417
50 - 54	5	3	9	6	3	6	1	33	1,859,838	56,359
55 - 59	3	4	5	8	0	1	1	22	1,128,112	51,278
60 - 64	4	4	6	4	2	6	6	32	1,696,114	53,004
65 - 69	0	1	5	2	1	3	0	12	636,648	53,054
70 +	<u>2</u>	<u>0</u>	<u>2</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>1</u>	<u>6</u>	<u>269,096</u>	<u>44,849</u>
Total	41	34	44	27	7	16	9	178	9,293,846	52,213

Average Attained Age      51.89

Average Past Service      12.89

## EXHIBIT C

### Demographic Information (continued)

Disabled Members				Retired Members & Beneficiaries				Total Members in Pay Status			
Age	Number	Average Benefit	Total Benefits	Age	Number	Average Benefit	Total Benefits	Age	Number	Average Benefit	Total Benefits
<20	0	0	0	<20	0	0	0	<20	0	0	0
20 - 24	0	0	0	20 - 24	0	0	0	20 - 24	0	0	0
25 - 29	0	0	0	25 - 29	0	0	0	25 - 29	0	0	0
30 - 34	0	0	0	30 - 34	0	0	0	30 - 34	0	0	0
35 - 39	0	0	0	35 - 39	0	0	0	35 - 39	0	0	0
40 - 44	0	0	0	40 - 44	0	0	0	40 - 44	0	0	0
45 - 49	2	40,225	80,449	45 - 49	0	0	0	45 - 49	2	40,225	80,449
50 - 54	1	33,696	33,696	50 - 54	3	14,541	43,622	50 - 54	4	19,330	77,318
55 - 59	2	36,466	72,931	55 - 59	5	30,796	153,981	55 - 59	7	32,416	226,912
60 - 64	6	27,601	165,608	60 - 64	22	34,767	764,879	60 - 64	28	33,232	930,487
65 - 69	5	27,032	135,161	65 - 69	20	32,697	653,933	65 - 69	25	31,564	789,094
70 - 74	4	31,775	127,098	70 - 74	22	19,205	422,520	70 - 74	26	21,139	549,618
75 - 79	4	21,078	84,310	75 - 79	11	31,008	341,088	75 - 79	15	28,360	425,398
80 - 84	1	20,823	20,823	80 - 84	11	16,339	179,727	80 - 84	12	16,713	200,550
85 +	<u>0</u>	<u>0</u>	<u>0</u>	85 +	<u>11</u>	<u>13,742</u>	<u>151,163</u>	85 +	<u>11</u>	<u>13,742</u>	<u>151,163</u>
Total	25	238,696	720,076	Total	105	193,095	2,710,913	Total	130	236,721	3,430,989

## EXHIBIT C

### Demographic Information (continued)

#### **History of Active Plan Participants**

<b>Valuation Year</b>	<b>Number of Participants</b>	<b>Average Age</b>	<b>Average Service</b>	<b>Average Annual Pay</b>
2014	178	51.89	12.89	52,213
2012	178	50.30	12.80	51,624
2010	171	49.00	12.40	50,905
2008	187	47.90	11.40	47,563
2006	186	46.80	10.50	43,969
2004	165	46.90	11.20	45,136
2003	166	46.40	11.10	42,633
2002	165	46.40	11.30	39,770



## EXHIBIT D

### Supplementary Information Required under Governmental Accounting Standards Board Statement No. 25

#### **Schedule of Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded AAL ("UAAL")	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
01/01/2014	34,820,803	64,528,515	29,707,712	53.96%	9,293,846	319.65%
01/01/2012	26,210,257	59,993,728	33,783,471	43.69%	9,189,068	367.65%
01/01/2010	22,241,000	52,498,000	30,257,000	42.37%	8,705,000	347.58%
01/01/2008	26,259,000	51,011,000	24,752,000	51.48%	8,894,000	278.30%
01/01/2006	19,173,000	44,706,000	25,533,000	42.89%	8,178,000	312.22%
01/01/2004	14,278,000	40,533,000	26,255,000	35.23%	7,447,000	352.56%

#### **Notes to Schedules**

Additional information as of the latest actuarial valuation:

Valuation Date:	January 1, 2014
Actuarial Cost Method	Entry Age Normal
Amortization Method	Approximate level percent of payroll (closed)
Remaining Amortization Period	16 years for the fresh start base
Asset Valuation Method	Market value of assets (adjusted by accounts payable & receivable)
Actuarial Assumptions:	
Investment Rate of Return	7.75% per year
Projected Salary Increases	4.50% per year

## EXHIBIT E

### PERAC Disclosure Information

#### **PERAC Information Disclosures**

The most recent actuarial valuation of the System was prepared by Odyssey Advisors, Inc. as of January 1, 2014

The Expected Annual Employee Contributions on that date was:	855,847	9.21% of payroll
The Net Normal Cost for the Employer as of that date was:	617,254	6.64% of payroll

The Actuarial Accrued Liability for Active members was:	28,974,709	
The Actuarial Accrued Liability for Inactive members was:	487,749	
The Actuarial Accrued Liability for Retired members was:	<u>35,066,057</u>	
The Total Actuarial Accrued Liability as of that date was:	64,528,515	
The Retirement System assets as of that date were:	<u>34,820,803</u>	
Unfunded Actuarial Accrued Liability as of that date:	29,707,712	

The ratio of the system's assets to total actuarial accrued liability as of that date:	53.96%	
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As of that date, the total covered payroll was:	9,293,846	
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The principal actuarial assumptions used in the valuation are as follows:

Actuarial Cost Method:	Entry Age Normal (level % of pay)
Annual Investment Return:	7.75% per annum
Rate of Salary Increase:	4.50% per annum

## EXHIBIT E

### PERAC Disclosure Information (continued)

#### Schedule of Funding Progress

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded AAL ("UAAL")	Funded Ratio	Covered Payroll	UAAL as % of Covered Payroll
01/01/2014	34,820,803	64,528,515	29,707,712	53.96%	9,293,846	319.65%
01/01/2012	26,210,257	59,993,728	33,783,471	43.69%	9,189,068	367.65%
01/01/2010	22,241,000	52,498,000	30,257,000	42.37%	8,705,000	347.58%
01/01/2008	26,259,000	51,011,000	24,752,000	51.48%	8,894,000	278.30%
01/01/2006	19,173,000	44,706,000	25,533,000	42.89%	8,178,000	312.22%
01/01/2004	14,278,000	40,533,000	26,255,000	35.23%	7,447,000	352.56%

## EXHIBIT F

### Hull Retirement System Funding Schedule

Fiscal Year	Net Normal Cost	Unfunded Actuarial	Funding	Net 3(8)(c) Payments	Scheduled Contribution
		Accrued Liability	Amortization of UAAL		
2015	734,850	35,454,135	2,557,666	110,318	3,402,834
2016	809,384	31,101,168	2,534,480	125,000	3,468,864
2017	845,806	30,780,606	2,630,790	125,000	3,601,596
2018	883,867	30,331,427	2,730,760	125,000	3,739,627
2019	923,641	29,739,719	2,834,529	125,000	3,883,170
2020	965,205	28,990,342	2,942,241	125,000	4,032,446
2021	1,008,639	28,066,829	3,054,046	125,000	4,187,685
2022	1,054,028	26,951,274	3,170,100	125,000	4,349,128
2023	1,101,459	25,624,215	3,290,564	125,000	4,517,023
2024	1,151,025	24,064,509	3,415,605	125,000	4,691,630
2025	1,202,821	22,249,194	3,545,398	125,000	4,873,219
2026	1,256,948	20,153,340	3,680,123	125,000	5,062,071
2027	1,313,511	17,749,891	3,819,968	125,000	5,258,479
2028	1,372,619	15,009,492	3,965,127	125,000	5,462,746
2029	1,434,387	11,900,303	4,115,802	125,000	5,675,189
2030	1,498,934	8,387,800	4,272,202	125,000	5,896,136
2031	1,566,386	4,434,557	4,434,557	125,000	6,125,943
2032	1,636,873	0	0	125,000	1,761,873
2033	1,710,532	0	0	125,000	1,835,532
2034	1,787,506	0	0	125,000	1,912,506
2035	1,867,944	0	0	125,000	1,992,944

### **Amortization of Unfunded Actuarial Accrued Liability as of July 1, 2015**

Year	Type	Original	Percentage Increasing	Original # of Years	Current	Years Remaining
		Amortization Amount			Amortization Amount	
2016	Fresh Start	2,534,480	3.80%	16	2,534,480	16